

AMENDMENTS TO THE CLAIM

1 1. (currently amended) A method for time aligning first and second signals, comprising: *the steps of*
2 modulating said second signal by said first signal to provide a third signal; and
3 determining frequency ~~components~~ component strengths of said third signal, said
4 frequency ~~components~~ component strengths being indicative of time alignment between said
5 first signal and said second signal signals, wherein said step of determining frequency
6 component strengths of said third signal comprises:
7 filtering said third signal to provide a filtered signal while sweeping said
8 second signal through a time delay; and
9 detecting a level of said filtered signal, said level being indicative of time
10 alignment between said first signal and said second signal, said step of detecting a level of said
11 filtered signal comprises:
12 first detecting when said filtered signal is at a minimum level
13 during said sweeping, said minimum level occurring at a first time delay value;
14 second detecting when said filtered signal is next at said minimum
15 level during said sweeping, said next minimum level occurring at a second time delay value; and
16 setting a time delay value for said second signal at a delay value
17 between said first time delay value and said second time delay value;
18 wherein said first signal comprises a data signal encoded in a predetermined bit
19 pattern in a Non-Return-to-Zero signal format, said second signal comprises a Return-to-Zero
20 pulse signal having a frequency equal to a data interval of said first signal, and said third signal
21 comprises a data signal in which said data is encoded in a Return-to Zero signal format .

1 2. - 4. (cancel)

1 2 ~~5~~. (currently amended) The method according to Claim ~~[[4]]~~ 1, wherein said step of
2 detecting a level of said filtered signal further comprises:
3 the
 converting said filtered signal to a DC voltage signal; and
4 measuring a voltage level of said DC voltage signal.

1 6. (cancel)

1 3 ~~1~~. (currently amended) The method according to Claim ~~[[6]]~~ 1, wherein said first and
2 second detecting steps comprise converting said filtered signal to a DC voltage signal, and
3 detecting the voltage level of said DC voltage signal during said sweeping.

1 4 ~~8~~. (original) The method according to Claim 1, wherein said first signal and said
2 second signal are in correct time alignment when a fundamental frequency of said third signal
3 equals one-half the frequency of said second signal.

1 5 ~~9~~. (currently amended) The method according to Claim ~~[[4]]~~ 1, wherein said step of
2 filtering further comprises filtering said third signal with a low pass filter.

1 6 ~~10~~. (original) The method according to Claim 1, wherein said first and second signals
2 comprise optical signals.

3 11.-20. (cancel)

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1 7 ~~21~~. (new) An apparatus for time aligning a first signal and a second signal, said first
2 signal being a Non-Return-to-Zero data test signal and said second signal being a Return-to-Zero
3 pulse signal, said apparatus comprising:
4 a modulator for modulating said second signal with said first signal to provide a
5 third signal;
6 a filter for filtering said third signal to provide a filtered signal, said filter filters
7 said third signal while sweeping said second signal through a time delay range; and
8 a detector for detecting a fundamental frequency of said third signal, said detector
9 detecting when said filtered signal is at a minimum level at a first delay value, said detector
10 further detecting when said filtered signal is next at said minimum level at a second delay value,
11 said detector further providing a delay value for said second signal being at a time delay value
12 between said first time delay value and said second time delay value.